

Serial No. .09/916,566

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CLAIM AMENDMENTS

1. - 4. (Cancelled)

5. (Previously Presented) A method of depositing material on a substrate, comprising the steps of:

heating the substrate with a high-power, rapid-response diode laser to create a melt pool in a laser interaction zone;

feeding material into the melt pool to create a deposit having a physical dimension;

monitoring the laser interaction zone to generate an optical signal indicative of the physical dimension; and

controlling the deposition using the optical signal.

6. (Previously Presented) The method of claim 5, wherein the deposition is controlled by modulating the laser.

7. (Previously Presented) The method of claim 6, wherein the modulation of the laser is in the kilohertz range.

8. (Previously Presented) The method of claim 6, wherein the modulation of the laser is up to 20 kHz.

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